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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/535,040	12/20/2005	Uwe Reichert	BOEH124931	2040
26389	7590	08/21/2006	EXAMINER	
CHRISTENSEN, O'CONNOR, JOHNSON, KINDNESS, PLLC 1420 FIFTH AVENUE SUITE 2800 SEATTLE, WA 98101-2347			MULLINS, BURTON S	
			ART UNIT	PAPER NUMBER
			2834	

DATE MAILED: 08/21/2006

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary	Application No.	Applicant(s)	
	10/535,040	REICHERT ET AL.	
	Examiner	Art Unit	
	Burton S. Mullins	2834	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 13 May 2006.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 10-30 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 10-30 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
 2. ☐ Certified copies of the priority documents have been received in Application No. _____.
 3. ☒ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|--|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892) ~ | 4) <input type="checkbox"/> Interview Summary (PTO-413) |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | Paper No(s)/Mail Date. _____ |
| 3) <input checked="" type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08) , | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152) |
| Paper No(s)/Mail Date <u>(12/20/05) 5-13-05</u> | 6) <input type="checkbox"/> Other: _____ |

DETAILED ACTION

Priority

1. Receipt is acknowledged of papers submitted under 35 U.S.C. 119(a)-(d), which papers have been placed of record in the file.

Information Disclosure Statement

2. The information disclosure statement (IDS) submitted on 15 May 2005 has been considered by the examiner.

Response to Amendment

3. The preliminary amendment filed 13 May 2005 has been entered.

Specification

4. The disclosure is objected to because of the following informalities: Consistent with the 35 USC 112 first paragraph rejection below (see section six), the description of “the yoke...is...moveable relative to said second shell” (p.3, third full paragraph) should be changed to --- the iron core...is...moveable relative to said second shell--- because there is inadequate support for the yoke 50 movable relative to the second shell 47 to adjust the length of the recess in the second shell, because there are no screw threads on the outside of the second shell, and it is not otherwise evident how the yoke thus moves relative to the second shell. See the discussion in the following section six. In the same paragraph, “magnetically effective length l ” should be changed to —effective magnetic length ℓ — (otherwise, the “ l ” will appear as a bold faced one in

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the printed patent; and this is furthermore consistent with the reference mark in Fig.2). Similar recitations appearing elsewhere in the specification should be changed also. Appropriate correction is required.

Claim Objections

5. Claim 10 is objected to because of the following informalities: On the last line, change “magnetically effective length L” to –effective magnetic length ℓ --. Appropriate correction is required.

Claim Rejections - 35 USC § 112

6. The following is a quotation of the first paragraph of 35 U.S.C. 112:

The specification shall contain a written description of the invention, and of the manner and process of making and using it, in such full, clear, concise, and exact terms as to enable any person skilled in the art to which it pertains, or with which it is most nearly connected, to make and use the same and shall set forth the best mode contemplated by the inventor of carrying out his invention.

7. Claims 10-30 are rejected under 35 U.S.C. 112, first paragraph, as failing to comply with the written description requirement. Claim 10 contains subject matter which was not described in the specification in such a way as to reasonably convey to one skilled in the relevant art that the inventor(s), at the time the application was filed, had possession of the claimed invention. The claimed subject matter of “the yoke...is...moveable relative to said second shell” is not adequately described in the specification. It is not clear from Figs.1-3 and the description on p.3, next to last paragraph, how the yoke 50 moves relative to the second shell 47 since the screw threading is on the inside of the second shell (Fig.2) and is for moving the adjustment ring 51 relative to the second shell, per the description on p.6, first paragraph. For purposes of

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comparison with the prior art, it will be assumed that the applicant meant the claim language to read: ---the iron core [48] is...moveable relative to said second shell---. This is consistent with the description on p.6, second paragraph where the iron core is described as rotated in one direction by way of a tool so as to be partially plunged into the first recess 45a of the plunger 45 and decrease the air gap 49. Rotation in the other direction increases the air gap size. The increase or decrease in air gap size thus adjusts the effective magnetic length “ ℓ ” of the second shell recess 47a.

Allowable Subject Matter

8. Claims 10-30 would be allowable if rewritten or amended to overcome the rejection(s) under 35 U.S.C. 112, 1st paragraph, as well as various objections set forth in this Office action. As noted above, for purpose of comparison with the prior art, the language in claim 10 of “the yoke...is...moveable relative to said second shell” has been interpreted instead to read: ---the iron core is...moveable relative to said second shell---. The prior art does not teach such a structure including, inter alia, a second shell comprising “at least one recess on its side facing away from the core for focusing magnetic field lines M from the yoke onto the core, and in the region of the recess of said second shell, the [iron core] and/or an adjustment member of high magnetic permeability is/are moveable relative to said second shell for adjusting the [effective magnetic length ℓ] of the recess of the second shell.”

The prior art teaches variance of the effective magnetic length of an air gap located between a plunger and piston; however, none of these references alone or in combination teach a

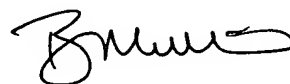
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shell with "at least one recess on its side facing away from the core for focusing magnetic field lines M from the yoke onto the core".

Conclusion

9. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure.

10. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Burton S. Mullins whose telephone number is 571-272-2029. The examiner can normally be reached on Monday-Friday, 9 am to 5 pm. If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Darren Schuberg can be reached on 571-272-2044. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300. Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.



Burton S. Mullins
Primary Examiner

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15 August 2006